

EXPERIMENTAL RESEARCH ON
POLITICAL GAMING

Social Science Division

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During the past four years the Social Science Division of The RAND Corporation has been experimenting with a technique that we call "political gaming."* This paper gives a brief description of the technique and some of our observations about its utility. RAND has also prepared a series of informal papers on gaming, some of which have been made available to persons outside RAND who have expressed an interest in experimenting with the technique. These papers are listed in Appendix A.

Political gaming has antecedents both within RAND and outside the organization. RAND has experimented fairly extensively with various forms of war games, some of which have attempted to take political factors into account. At one point an attempt was made to devise a "cold war game" in which political dimensions were assigned numerical values so that the relative worth of alternative strategies could be assessed quantitatively. This experiment was abandoned when it became clear that the oversimplification of the situation that was necessary in order to permit quantification of political variables made the game of doubtful value for the

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assessment of political strategies and tactics in the real world.

Prior to World War II, political gaming was apparently applied to questions of foreign policy in Japan, although we were not aware of this at the time we started our experimentation. According to exhibits offered in evidence at the Tokyo War Crimes Trials, the Japanese Total War Research Institute engaged in exercises that involved having teams of specialists play the political and military roles of leading powers in the Pacific area. These teams then reacted to each other's moves in the way that the nations concerned might be expected to react in the real world. Interestingly enough, Japan was not represented by one team in these exercises but by several -- Army, Navy, Cabinet, etc. -- and the views of these various teams had to be co-ordinated before Japan could move. Some of the moves in the Japanese game anticipated actual moves made by the Japanese after Pearl Harbor.

According to an article in the Sunday Times (London), December 9, 1956, the Soviets have made use of a similar procedure. Alexandre Metaxas, who is identified as "a Russian-speaking French journalist," reports that Soviet political specialists try to anticipate the results of international political moves by putting themselves in the role of each

interested party in turn, and claims that the course to be followed by the Soviet foreign office is determined in part by the results of this simulated interaction.

Our interest in political gaming grew out of RAND's work in political analysis and previous experimentation with the use of gaming techniques for other purposes. The first proposal for a political game of the type with which we have been working was made by Herbert Goldhamer in 1954. In a memorandum on political gaming, he suggested a procedure that avoided schematic simplifications of the international political situation and attempted to reproduce as faithfully as possible much of its complexity. The government of each country was to be represented by a separate player or group of players. These were to act in the manner that "their" countries might be expected to act. (In practice, of course, all countries never have been represented, but only those regarded as most significant for the geographical or problem area around which the game is centered.)

In addition, "nature" was to be represented by an individual or a team, and there was to be a team of referees. The role of "nature" was to make the game more realistic by providing for events of the type that happen in the real world but are not under the control of any government:

certain technological developments, the death of important people, famines, popular disturbances, etc. The referees had the task of ruling on the feasibility of each move; that is, they were to disallow any move that they did not regard as within the power of the government proposing it.* Participants in the game were to be area specialists who could draw on their accumulated area experience. The American team was to be limited only by the power of the Executive to act; it was not restricted to following the foreign policy line of any administration. The game was thus designed to permit the testing of alternative U.S. strategies.

In the course of 1955 and early 1956, four political games were played, starting with the rules suggested by Goldhamer and gradually developing additional refinements. The first two games extended over only a few days and did not involve a large investment of manpower. The third game lasted four weeks in the summer of 1955, and a dozen RAND staff members devoted approximately half time to it. The fourth was conducted during the month of April 1956. Three senior foreign service officers from the State Department

* The referees or "nature" players have sometimes also been used to represent political entities peripheral to the main concern of a particular game.

participated in this last political game, along with specialists from RAND's Social Science, Economics, and Physics Divisions. In the fourth game, unlike previous plays, all team members devoted practically full time to the exercise. In addition, considerable time was spent on the preparation of a "scenario" and "strategy papers" prior to the start of gaming.

Since the fourth game is by far the most exhaustive test given this technique thus far, the following observations refer primarily to it. One reference back to the earlier games may, however, be useful in order to explain what is meant by the "scenario." In our first attempts at political gaming we had started with the historical present as a backdrop. The play opened with the U.S. and the U.S.S.R. teams making one move each as of "tomorrow" (i.e., the Russians might start a new peace offensive, the United States might embark on a program of increased foreign economic aid, etc.). From then on, events moved on into the future under their own momentum. Since, however, events in the real world often transpired with great rapidity, it sometimes proved difficult to prevent the initial action in the game from becoming overtaken by or entwined with developments reported in the daily newspaper. The fourth game, therefore, was projected farther in the future, with the opening moves to be made as of

January 1, 1957. The scenario, written in March 1956, represented an effort to describe how the world as of January 1, 1957, would look. It thus provided the players with a common basis from which to begin.

In this game, as in the third, all moves by national teams were made in written form and submitted to the referees for clearance before being distributed to the teams intended to be the recipients. The referees could challenge the plausibility or the reasoning behind the moves, and if requested could be forced to state their objections in writing. The referee team also played the part of "nature."

Some moves were "open" and available to all teams; others were "game classified." The referees, as controllers of information, could "leak" the contents of "game classified" papers, in whole or in part, accurately or in distorted form, thus serving as surrogates for the intelligence function in the political process or for actual "leaks" of classified information in the free press. They did not act for the communist press, since it is government-controlled.

The players were free to take off from the scenario in developing their strategies and tactics. The three government teams (U.S., S.U., and Western Europe) drew up "strategy papers." These were "game classified" and distributed to the referees only, prior to the April session.

During the three weeks of actual play, a total of 150 separate papers were written by the participants. Many of these consisted of moves by government teams. There were also a number of "game classified" papers summarizing policy calculations behind the moves. The background papers served to give the referees a basis for judging the motivation, plausibility and feasibility of any given move, and to provide a written record of the analytical thought behind the move itself.

The fourth game was focused on the activities of the U.S. and S.U. with respect to each other and to Western Europe. In the first week, some major activity did develop involving the Middle East and some minor activity involving North Africa and Asia. But on the whole these areas received secondary attention because of limitations in the time and number of area specialists available, (and not because of an a priori judgment about the political importance of these areas).

Events in the game carried well into the summer of 1957. At the end of a little more than three full weeks of play, the complete set of records was thrown open to all participants, including the strategy papers and all other "game classified" documents. Time was allowed for the study of these papers and then two days were devoted to meetings of all participants to assess and evaluate the game.

These discussions provided an opportunity to assess the degree to which the technique was or was not worth the substantial investment of time and energy required to pursue it systematically. At the outset of our experimentation with political games, four possible utilities or payoffs had been suggested. These were:

1. Developing and testing alternative national strategies.
2. Suggesting new tactical moves and contingency plans.
3. Discovering areas where research was most needed.
4. Training personnel in international relations.

It is difficult to state precisely the degree to which each of these gains was or was not realized, because we are not completely agreed among ourselves. Nevertheless, the sense of our discussions to date is summarized in the following paragraphs.

As far as developing and testing possible political strategies are concerned, it was felt by several participants in the games that these ends could be attained in part by the gaming technique, but that this was more expensive and time-consuming than conventional analysis. Furthermore, one could not be sure of the extent to which the game tested the relative

skill of the players rather than the merits of a particular strategy. (Conventional analysis, of course, is subject to the same hazards.) At the same time, all participants in the game agreed that they had learned a substantial amount about the probable effects of various political strategies.

The virtue of the game in calling attention to possible political contingencies and suggesting tactical moves was given a more positive evaluation. On various occasions participants in the fourth round felt it advisable to notify the appropriate offices in Washington about developments in the game that suggested the need for particular types of advance planning in the real world. To be sure, it was realized that these suggestions -- while useful -- were not a unique product of the gaming technique; they could also have been developed by political specialists of comparable skill using conventional procedures. The game situation may, however, have provided greater stimulation.

There was warm appreciation of the third possible value of political gaming -- revealing areas where research was most critically needed. The third and fourth games redefined a number of areas where research could be of direct benefit to U.S. foreign policy; indeed, appreciation of this value of gaming has increased with the passage of time.

The fourth possible utility of the political game, education and training, was recognized with a high degree of enthusiasm by all participants and observers. All those who participated in one or more of the four experimental sessions felt that they had benefited appreciably from the experience, and believed that the training potentialities of the gaming technique should be investigated further.

The educational value of the gaming technique was experienced in three different ways. First, participants felt that they were forced by the game to draw together, organize, and apply their existing knowledge of past and present political events in rigorous fashion to problems of the future. This was true even of the foreign service officers who were accustomed to dealing with international political problems in the real world. One reason for this capacity of the game to promote integration of a wide variety of information bearing on foreign affairs was that each participant had to gain an overview of the entire situation facing the country whose role he was taking. In large organizations, such as the State Department, and ordinarily in academic organizations as well, there is a division of labor that tends to prevent any one individual from obtaining such an overview. The political game made broad vision essential if the player was to acquit himself creditably.

Secondly, most players found that the game required them to explore new fields of knowledge, some of which they had not previously associated with the conduct of foreign policy. For instance, political specialists realized that they could not reach sound decisions without more information on certain recent technological developments; as a result several briefings were given by physical scientists from various RAND divisions. Furthermore, area specialists not infrequently were made keenly aware of the fact that knowledge about characteristics of the world outside their area of specialization affected the politics of countries within their area. Policies that seemed to be proper in view of conditions prevailing within one area were sometimes shown to be defective because a player had failed to consider repercussions in the rest of the world. Even very well informed players generally learned a great deal about the political forces at work in various areas.

A third educational effect of the game was to give the players a rather unusual insight into the pressures, uncertainties, and moral and intellectual difficulties which have to be faced and resolved when foreign policy decisions are made. The ability of the players to take the game seriously showed in the intense gratification they felt when "their" country scored a success and their dejection when it suffered

a diplomatic defeat. But most of all, the players quickly gained a sense of the grave consequences that might result from an ill-advised move. In the game, as in the real world, international relations were conducted under the shadow of the terrible destructiveness of modern weapons. Participants acquired a sense of crushing responsibility, and for this reason the game was sometimes very exhausting. Also as a result of this sense of responsibility, players often tended to be extremely cautious. Those who in the classroom or in publications may have advocated "bold, imaginative policies" and criticized free-world leaders for timidity usually found themselves behaving with equal caution when they assumed the burden of policy-making in the game. Participants thus tended to judge foreign policy decisions in the real world differently after the game than they had done before it.*

* In an experiment conducted later at M.I.T. by a RAND staff member, a modified form of political gaming was attempted with graduate students as participants. The student who played the part of the United States, a staunch adherent of the Democratic Party, burst out during the evaluation session at the end of the game: "For the first time in my life I sympathize with John Foster Dulles."

While the game was not developed or played for the purpose of making unconditional predictions, quite a few of the events that occurred in the games in consequence of the players' moves later occurred in the real world. Without extensive experimentation, however, it would be impossible to say that the predictive ability of the game is significantly greater than the predictive ability of the same foreign policy experts engaging in more conventional analysis.

In the game that took place in Santa Monica in 1956, for example, such events were reported as the withdrawal of minor Soviet contingents from Germany, differences of opinion among the NATO powers as to the amount of force to be used in relations with Nasser, and rapid Soviet technological advances in rocketry. Very similar news appeared in the press soon thereafter. In a game conducted with students at M.I.T. in 1958, the French team made a move that involved a rebellion of the colonists and military in Algeria against the authority of the Paris government. At first, the referees were reluctant to allow this move, since they regarded it as so extreme as to depart from the criterion of reality. They finally permitted it, however, since they concluded that it was feasible, even if unlikely. Then, several weeks later, a very similar event took place in the real world. In still another game the

revolution in Iraq was anticipated. Largely because of predictions of this sort, participants tend after each game to follow the news with particular attention in order to see whether the various nations are behaving "as they should."

Even before the first four games had been completed, RAND began to receive requests for information about its political gaming technique, and staff members have by now taken part in a substantial number of discussions about it. In the summer of 1956 Hans Speier presented a summary of our experience as of that date to the Social Science Research Council seminar in Denver. Later in the year Joseph Goldsen did the same at several faculty and student gatherings at Yale, and in June 1957 Goldsen gave an informal description of the gaming technique at a conference on research needs in international relations sponsored by the Carnegie Endowment for International Peace at Princeton. Informal discussions about political gaming have also been held with personnel of the Center for International Affairs at Harvard, the Brookings Institution, and Northwestern University. On several occasions during 1956 and 1957 Herbert Goldhamer lectured about the political game at the Army War College, and in 1957 Speier gave a talk about it to the Fellows at the Center for Advanced Study in the Behavioral Sciences at Stanford.

As a result of these and other discussions we believe that information about our experience with political gaming has been made available quite widely, even though we have not prepared any systematic summary of it. We have not attempted to collate the experiences other institutions may have had in using political gaming techniques derived from the RAND experiments or worked out independently. Such a collation might be useful at some future time.

We do, however, have rather detailed information about two experiments with political gaming at M.I.T., both stemming from the RAND experience. During the academic year 1957-1958, W. Phillips Davison of the RAND staff served as visiting professor at M.I.T. and while there tried out political gaming in his graduate seminar on international communications. This game was conducted according to greatly simplified rules. Players sat around a large table and could make their moves verbally, although a fairly detailed written record was kept. Each country was represented by only one seminar member. The instructor acted as referee and nature. This game was played for four seminar periods of somewhat over two hours each.

In spite of the limitations imposed by the simplified procedures and the brief time available, Davison concluded that the experiment achieved very worthwhile results from an

educational point of view. While it did not approach the realism of the RAND games, it showed that even with less expert players the game provided some very real benefits. Perhaps the most outstanding of these was the intense interest generated among the students. When formal gaming came to an end, due to the limited time available, students continued the game at lunch and at other informal gatherings. Some of them became so deeply identified with their roles that they appeared to have difficulty stepping out of them. A related benefit was the increased sophistication with which students approached their research problems later in the year. The gaming experience helped to remind them of the interdependence of various geographical areas and also of the constraints on foreign policy-makers.

Later in the same year, Professor Lucian Pye -- also at M.I.T. -- became interested in using the political gaming technique in connection with his senior course in American diplomacy. Professor Pye, assisted by Professor Warner Schilling (now at Columbia), adapted the RAND technique to his course requirements and introduced some ingenious innovations. During the term each student was asked to write a paper setting forth the major foreign policy goals of some country and to outline a foreign policy for achieving these goals. Then,

during the last four meetings of the course, political gaming was conducted, with students taking the parts of the countries whose foreign policies they had discussed in their term papers. During the game Professors Pye and Schilling edited a "World Newspaper," which was distributed to all participants at the start of each session. This included "news" contributed by each team (i.e., what each country wished to have known about itself and its policies), as well as editorials and a "James Reston column" written by the instructors. The latter column often included "leaks," references to domestic reactions, etc.

This experiment appeared to be a highly successful pedagogical enterprise. In many cases students found that the foreign policy they had constructed in their term papers proved totally unrealistic when they attempted to apply it in the game. The game thus provided a way in which they could obtain critical insight into their own previous thinking. The students also developed greatly increased motivation for broadening their knowledge about international affairs. Thus a striking characteristic of the gaming technique is that it is beneficial for those with only a learner's knowledge of international affairs -- such as college seniors -- provided their work is criticized by experts, as well as for specialists in foreign policy.

A marginal note by both Pye and Davison is that political gaming, when conducted with students, places a very heavy burden on the instructor (who acts as referee and nature). He is likely to find the procedure time-consuming and exhausting, although he is also likely to be pleased with the results.

A further use of the gaming technique at M.I.T. was made by the Center for International Studies, in connection with a research project on the United Nations headed by Professor Lincoln Bloomfield. This session took place in September. Several RAND staff members discussed the plans with Professor Bloomfield, and the informal records on RAND's gaming experience were made available to him. Paul Kecskemeti of the RAND staff participated in this game.

We believe that there are a great many substantive political questions and questions of technique that could be clarified by more work in political gaming, but that gaming is most productive if one is able to bring to it the results of continuous research and study in the field of foreign affairs and weapons development. Intermittent rather than continuous gaming activities appear to us therefore the most productive way of combining the benefits of research and gaming. At the same time we are continuing to think about further possible utilities and applications of political games and hope to be able to explore some of these in the future.

Appendix A

RAND Documents on Political Gaming

H. Goldhamer	"Toward a Cold War Game," October 22, 1954, 10 pages.
P. Kecskemeti	"War Games and Political Games," April 15, 1955, 17 pages.
H. Goldhamer	"Summary of Cold War Game Activities in the Social Science Division," [First Round], April 12, 1955, 27 pages.
P. Kecskemeti	"Summary of Cold War Game Activities in the Social Science Division: May Experiment" [Second Round], June 20, 1955, 63 pages.
E. Schnitzer	"Third Political Exercise: Summary and Documents," September 1, 1955, 208 pages.
H. Goldhamer	"The Political Exercise: A Summary of the Social Science Division's Work in Political Gaming, with Special Reference to the Third Exercise, July- August, 1955," September 1, 1955, 23 pages.
E. Schnitzer	"Fourth RAND Political Exercise: Summary and Documents," May 25, 1956, 358 pages.
J. Goldsen	"The Political Exercise: An Assessment of the Fourth Round," May 30, 1956, 59 pages.